

<b>General Information</b>	
Academic subject	Honey bee products
Degree course	Master programme: Food Science and Technology
ECTS credits	3
Compulsory attendance	No
Teaching language	Italian

<b>Subjectteacher</b>	Name Surname	Mail address	SSD
	<b>Rocco Addante</b>	<a href="mailto:rocco.addante@uniba.it">rocco.addante@uniba.it</a>	AGR/11

<b>ECTS credits details</b>	
Basic teaching activities	2 ECTS Lectures   1 ECTS Laboratory or field class

<b>Class schedule</b>	
Period	I semester
Course year	Second
Type of class	Lectures, laboratory classes

<b>Time management</b>	
Hours	75
In-class study hours	30
Out-of-class study hours	45

<b>Academiccalendar</b>	
Class begins	September 27 <sup>th</sup> , 2021
Class ends	January 21 <sup>th</sup> , 2022

<b>Syllabus</b>	
Prerequisites/requirements	In order to follow the didactic module, the student must have knowledge of general zoology and entomology.
Expected learning outcomes	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Knowledge of production techniques, characteristics of hive products and criteria for enhancing them.</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to associate the characteristics of the hive products to the production areas.</li> <li>○ Ability to produce and market hive products in compliance with current legislation.</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Ability to propose production methods suited to specific company needs and to enhance the products of the hive.</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to communicate theoretical and practical knowledge on hive products by effectively discussing them with the interlocutors.</li> </ul> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ Ability to keep knowledge of beehive products constantly updated and to intercept new inputs from the world of production and the market to promote qualitative and quantitative improvements to companies in the sector.</li> </ul> <p>The expected learning outcomes, in terms of both knowledge and skills, are provided in Annex A of the Academic Regulations of the Degree in Food Science and Technology (expressed through the European Descriptors of the qualification)</p>
Contents	o The module is aimed at providing knowledge on: - essential elements of honey bee bio-ethology and ecology;

	<ul style="list-style-type: none"> <li>- raw materials, methods of production and characteristics of bee products;</li> <li>- equipment and operation of a honey house;</li> <li>- criteria for enhancing the honey bee products (honey, royal jelly, propolis, etc.);</li> <li>- notes on beekeeping legislation.</li> </ul> <p>- The practical activities will mainly aim to guide the student, through sensory, chemical-physical and melissopalinalogical analyzes, to discover the diversity and quality of honeys.</p>
<b>Course program</b>	
Reference books	<p>Lecture notes and educational supplies provided during the course</p> <ul style="list-style-type: none"> <li>• Bortolotti L., Mazzacan G.L., 2017. I prodotti dell'alveare. Edagricole-New Business Media, Milano, 196 pp.</li> </ul> <p>For further information:</p> <ul style="list-style-type: none"> <li>• Contessi A., 2004. Le Api. Biologia, allevamento, prodotti (terza edizione). Edagricole, Bologna: 497 pp.</li> <li>• Contessi A., 2004. Le Api. Biologia, allevamento, prodotti (terza edizione). Edagricole, Bologna: 497 pp.</li> </ul>
Notes	
Teaching methods	<p>The topics of the course will be treated with the help of Power Point presentations, classroom and laboratory exercises. Case study will be discussed.</p> <p>All the material used for the lessons will be made available to students on the Microsoft Teams platform.</p>
Evaluation methods	<p>The exam consists of an oral dissertation on the topics developed during the theoretical and theoretical-practical lectures in the classroom and in the laboratory/production plants, as reported in the Academic Regulations for the Master Degree in Food Science and Technology (article 9) and in the study plan (Annex A).</p> <p>Students attending at the lectures may have a middle-term preliminary exam, consisting of a written test, relative to the first part of the program, which will concur to the final evaluation and will be considered valid for a year.</p> <p>The evaluation of the preparation of the student occurs on the basis of established criteria, as detailed in Annex B of the Academic Regulations for the Master Degree in Food Science and Technology.</p> <p>Non-Italian students may be examined in English language, according to the aforesaid procedures.</p>
Evaluation criteria	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to clearly and correctly explain the topics covered during the lessons, adequately motivating the answers.</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to apply the knowledge acquired during the lessons to concrete cases of the honey bee product chain.</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Ability to propose and argue possible solutions to problems inherent to honey bee products.</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to discuss in a clear, correct and convincing way the arguments concerning the products of honey bees.</li> </ul> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ Demonstration of having assimilated the concepts exposed on the products of the hive by applying them to cases other than those dealt with in class.</li> </ul>
Receiving times	Every day by appointment